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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,860	09/24/2003	Shigeyasu Morihiro	08917-090001	4396

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EXAMINER

SASTRI, SATYA B

ART UNIT PAPER NUMBER

1713

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/669,860	Applicant(s) MORIHIRO ET AL.	
	Examiner Satya B. Sastri	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

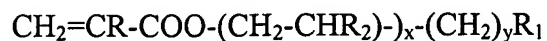
DETAILED ACTION

1. Applicant's amendment filed December 23, 2005, has been fully considered with the following results. All previous rejections are withdrawn in view of the amendment filed.
2. With the cancellation of claims 1-5, *claims 6-13* are now pending in the application. New grounds of rejections are introduced in this action.

Previously Cited Statutes

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. *Claims 6, 7, 9-13* are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 4,138,381).

Chang et al. disclose polymeric thickeners based on (a) 10-98% of at least unsaturated carboxylic acid of 3 to 8 carbon atoms, (b) about 1 to 50% by wt. of at least one alkyl acrylate or alkyl methacrylate and (c) about 1 to 85% by wt. of at least one ester of the formula:



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wherein R and R₂ are each hydrogen or methyl, x is a positive integer of 5 to 80, y is an integer of 0 to 20 and R₁ is alkyl of 1 to 20 carbon atoms (abstract). The amount of thickener useful in polymeric lattices may range from 0.1 to 10 parts by wt. (column 5, lines 35-61). The coating composition may further include pigments and extenders (column 6, lines 3-15). A flat paint disclosed in column 7 includes pigments and fillers and binder within the instantly claimed range. The solids content of the paint in the working example is 56%.

The difference between the prior art and the instant invention is that the prior art does not disclose a solids content of 60-85% by wt. of the composition.

The working example with 56% solids content is only a preferred embodiment which is close to the instantly claimed range. The prior art compositions may have higher amounts of solids in order to reduce the volatile content of the composition or to increase the mechanical performance of the coating resulting from higher filler content. Thus, it would have been obvious to one skilled in the art at the time the invention was made to appropriately alter the solids range in prior art to accommodate more fillers or binder content and thereby obtain the instant invention, absent a showing of unexpected results for the instantly claimed solids range.

5. ***Claims 6-13*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonweiler et al. (US 5,610,215) in view of Shay et al. (US 5,478,602).

The prior art to Nonweiler et al. concerns aqueous emulsion based coating compositions, comprising 20-50 parts of binder and a filler content up to 60 parts by wt. The composition may contain effective amounts of thickener and other additives (abstract). Typical binder may be a

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latex based resin, dispersed in water (column 4, lines 35-48). Thickener may be used in amounts of 0.1 to about 10% by wt. (column 5, lines 17-30).

The difference between the prior art and the instant invention is that the prior art does not disclose in instantly claimed thickener in the compositions.

Shay et al. disclose associative polymeric thickeners comprising unsaturated polymeric thickeners comprising 1-99.9% unsaturated carboxylic acids, 0-98.9% unsaturated monomers, 0.1-99% of one or more hydrophobe-containing macromonomer and 0-20% of polyethylenically unsaturated monomers (column 1, lines 60-67m column 2, lines 1-10). Aqueous coating compositions in which the thickeners may be used include adhesives, caulks, latex paints etc. (column 13, lines 1-11). The solids content of the aqueous coating composition may range from 30-65% by wt. (column 13, lines 55-59). The secondary reference discloses that compositions comprising associative polymeric thickeners based on hydrophobe-containing macromonomer generally have a relatively low extensional viscosity resulting in improved transfer and reduced webbing during coating operation (column 2, lines 10-17). Thus, it would have been obvious to one skilled in the art at the time the invention was made to include polymeric thickeners based on hydrophobe-containing macromonomer in the compositions of Nonweiler et al. and thereby obtain the instant invention.

Action Is Final

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Future Correspondence

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri whose telephone number is 571-272-1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone numbers for the organization where this application or proceeding is assigned is 571 273 8300 for regular communications. The unofficial direct fax phone number to the Examiner's desk is 571-273-1112.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

February 1, 2006



DAVID W. WU
SUPERVISORY PATENT EXAMINER
BIOLOGY CENTER 1700